

ORGANICISM IN NICOLAS BACRI'S SYMPHONY NO. 6, OP. 60

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An essay submitted to the Moores School of Music,
Kathrine G. McGovern College of the Arts
in partial fulfillment of the requirements for the degree of

Doctor of Musical Arts

in Orchestral Conducting

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University of Houston
October 2019

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DEDICATION

This dissertation is dedicated my parents, Gary and Mary Jo Chapman, without whom I would have nothing. Your unconditional love, endless support, and thoughtful guidance mean more to me than you can possibly know. You inspire each day to be the best man I can be for myself and for others. Thank you and I love you.

ACKNOWLEDGMENTS

I would like to thank the members of my committee Dr. Paul Bertagnolli and Dr. Marcus Maroney for their flexibility and thoughtful comments.

Special thanks go to Maestro Franz Anton Krager for his belief in my ability and continual guidance of my growth as a conductor and teacher. Thank you for giving me the opportunity to work with the University of Houston Moores School of Music Symphony Orchestra and present the United States premier of Nicolas Bacri's Symphony No. 6.

A very special thank you goes out to Mr. Nicolas Bacri for his beautiful music, penetrating discourse, and assistance in securing his compositions for research and performance.

It is with the utmost humility and immense gratitude that I thank Dr. Aaminah Durrani for her selfless dedication to this project. Words cannot express my appreciation for your challenging intellect, unending support, and constant humor amid the terror.

ABSTRACT

With over 170 compositions, the music of French composer Nicolas Bacri (b. 1961) has received performances by leading international ensembles and soloists throughout Europe and East Asia. Bacri's compositional aesthetic represents a conscious dichotomy between tradition and modernism. Symphony No. 6, Op. 60 (1998) represents one of Bacri's most noteworthy works. This piece was commissioned by Radio France for l'Orchestre Nationale de France and premiered in 1999 with Leonard Slatkin conducting. It is at this intersection of the formal inheritance of the symphonic genre and Bacri's own reference to the organic unfolding of the symphony that my analysis begins. I argue that it is through an organic cultivation of his melodic content that the palpable unity of Bacri's Symphony No. 6, so characteristic of its symphonic legacy, emerges.

Rooted in the ancient Greek writings of Aristotle and Plato, a working understanding of organicism has unfolded diachronically. Fundamentally, organicism is a metaphor that likens the life of an organism to that of a musical composition (or other work of art). Writings by three nineteenth-century theorists—Jean Baptiste Robinet, Johann Wolfgang von Goethe, and August Wilhelm Schlegel—will be discussed to distill three basic characteristics of organicism: 1) small unit conception of a initiating cell or prototype, 2) dynamism, and 3) goal-oriented teleology.

The majority of the discussion will explain how the three elements of organicism manifest themselves in the melodic content of Bacri's Sixth Symphony. Musical examples will showcase a hierarchy of recurring set classes (trichords and tetrachords), categories of recurring set classes that represent organic structures, an initiating

prototypical set class, and the organic cultivation of a principal motive that unifies all areas of the symphonic form.

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French composer Nicolas Bacri (b. 1961) began studying piano at age seven, and by 1975, his musical studies expanded to harmony, counterpoint, and composition. He entered the Paris Conservatory in 1978, where his studies included analysis with Claude Ballif, orchestration with Marius Constant, and composition with Serge Nigg and Michel Philippot. Bacri's compositions garnered extensive praise in France beginning with the Premier Prix, affording him study at the French Academy in Rome from 1983 to 1985, and numerous awards from the Société des auteurs, compositeurs et éditeurs de musique, culminating in the Grand Prix de la musique symphonique in 2006.

With over 170 compositions, Bacri's output includes seven symphonies, nine string quartets, seven cantatas, four violin concertos, two one-act operas, and a variety of other solo and chamber works. Leading international ensembles have performed his music, including the China National Symphony Orchestra, Orchestre National de France, Orchestre Philharmonique de Radio-France, London Symphony Orchestra, Munich Philharmonic Orchestra, Philharmonia Orchestra, English Chamber Orchestra, Spanish National Orchestra, Shanghai Symphony, Tokyo Philharmonic, and WDR Sinfonie Orchester-Köln. Recordings of his work can be found on the Deutsche Grammophon, BMG, RCA, and Red Seal labels.

Bacri's compositional aesthetic represents a conscious dichotomy between tradition and modernism. Composer and critic John Borstlap articulates this duality in a review of an April 27, 2017 concert entirely of Bacri's music performed by L'Orchestre Philharmonique de Radio-France: "Bacri's music is not 'conservative' because of its interpretation of traditional values, because his interpretations are always personal, expressive and authentic, using a familiar-sounding musical language but what is 'said',

is always new.”¹ Bacri himself addresses this characteristic in his works by aligning himself with various traditions throughout history. In his *Notes étrangères*, he states:

My music is not neo-Classical, it is Classical, for it retains the timeless aspect of Classicism: the rigour of expression. My music is not neo-Romantic, it is Romantic, for it retains the timeless aspect of Romanticism: the density of expression. My music is Modern, for it retains the timeless aspect of Modernism: the broadening of the field of expression. My music is Postmodern, for it retains the timeless aspect of Postmodernism: the mixture of techniques of expression.²

Bacri argues that his music exemplifies an amalgamation of elements and trends. Rather than aligning himself with one era or movement, he embraces the musical inheritance he has received.

Symphony No. 6 represents one of Bacri’s most noteworthy works. This piece was commissioned by Radio France for l’Orchestre Nationale de France and premiered in 1999 with Leonard Slatkin conducting. The symphony consists of four movements: I. Largo raccogliato—Allegro collerico, II. Scherzo, III. Adagio drammatico—Largo raccogliato e poco a poco agitato, and IV. Allegro entusiastico. But similar to Liszt’s piano concertos, Bacri’s symphony is performed continuously as a cohesive, single movement. The movements are Hiding among the seemingly incongruous intense dramatic shifts, opposing orchestral textures, and incessant motivic gestures, there appeared to be some coherence. In addition, the juxtaposition of dense versus sparse instrumentation and contrapuntal textures created a confrontation that seemed to search

¹ Bortslap, John, “Is France Rejecting the Boulez Line for the Bacri Solution?” Slipped Disc blog, May 3, 2017.

² Bacri, Nicolas, *Notes étrangères* (Paris, France: Éditions Séguier, 2004), 21.

for something unknown, propelling the work forward. These characteristics represent Bacri's style, making the symphony a perfect example to explore in more depth.

Bacri's own program notes for the symphony articulate two important factors that make the Sixth Symphony revelatory of his compositional language. First, he poses the question, "Is a symphony of only twelve minutes, really a symphony?"³ The time parameters set forth in the commission offered Bacri fertile ground to experiment with the formal implications inherent in the genre, although on a greatly compressed scale.⁴ Second, Bacri explains that the "short duration should bring out more of the organic feeling which should emerge from it while making the perception of contrasts even more acute."⁵ It is at this intersection of the formal inheritance of the symphonic genre and the reference to organic unfolding of the work that my analysis begins. I argue that it is through an organic cultivation of his melodic content that the palpable unity of Bacri's Symphony No. 6, so characteristic of its symphonic legacy, emerges.

Definition of Organicism

Organic analysis of any work presents challenges, since even its proponents have been unable to reach a consensus for the meaning of the term. Growth of organisms, particularly plants, became a seminal idea in explaining music and literature in the

³ Nicolas Bacri, *Symphony No. 6* (Paris: Durand Salabert Eschig, 1999), 1.

⁴ Bacri does not detail the exact time limit of the commission, but only refers to it as a "time constraint."

⁵ *Ibid.*

nineteenth century. This idea, called "organicism," was applied to the arts by some of the great creative minds of the late eighteenth and early nineteenth centuries and continues to influence how we think about music today. Rooted in the ancient Greek writings of Aristotle and Plato, a working understanding of the concept has unfolded diachronically. Fundamentally, organicism is a metaphor that likens the life of an organism to that of a musical composition (or other work of art). Common anthropomorphic concepts of dynamism, unity, and goal orientation, became terms of an embodied metaphor for an organism's continuous cellular growth, interworking of various corporeal systems, and a purposeful lifespan for the organism. This terminology coalesced into a nineteenth-century concept of organicism, profoundly impacting musical aesthetics and analysis.

Three influential theorists played a role in shaping the organicism paradigm in the nineteenth century. We begin with two examples from the scientific field—one French and one German—and then another from the literary arena. Best known for his five-volume work *De la nature* and contributions to sequels of Diderot's *Encyclopédie*, French naturalist Jean-Baptiste Robinet (1735-1820) wrote:

All beings differ one from the other, but all those differences constitute natural variations of a *prototype* that may be regarded as the generating element of all beings. . . . It is a *germ* [*cell*, *monad*] that has a natural tendency towards self-development The *cell* develops itself thus, and every level of development produces a variation of the *prototype*—a new combination of the fundamental universal plan. Each level provides passage to a successive level...⁶

The italicized words here are mine and focus our attention on the terminology common to much of the writing on organicism. Words like cell, seed, prototype, and germ all refer to

⁶ David L. Montgomery, "The Myth of Organicism: From Bad Science to Great Art," *The Musical Quarterly* 76, no. 1 (1992): 18.

a small, organizing component that acts as the genitor of all organisms. I use the term “small-unit conception” to refer to this overarching concept advocated by nineteenth-century writers. To Robinet, all organisms—plant and animal—are variations of the same fundamental unit.

Johann Wolfgang von Goethe (1749-1842) also formulated the notion of a small, originating entity. Known more in musical circles as the preeminent poet of German Romanticism, Goethe wrote important literary criticisms and treatises on botany and anatomy. After an intensive study of plants during his travels in Italy, he posited a progressive process of development from seed to adult plant. Goethe summarized this growth in a poem entitled *The Metamorphosis of Plants*:

Burgeons by stages into flower and fruit,
Bursts from the seed so soon as fertile earth
Sends it to life from her sweet bosom, and
Commends the unfolding of the delicate leaf
To the sacred goad of ever-moving light!
Asleep within the seed the power lies,
Foreshadowed pattern, folded in the shell,⁷

He uses the same terminology of the seed seen in Robinet, but enlivens it with a sense of vitality and animation. Goethe applied this study to animals as well as plants. He hypothesized the existence of what he called *Urtypen* or prototypes. Consequently, his *Urpflanz* and *Urtier* were the originating plant and animal from which all others could develop. Despite the flawed science, both theorists agree on the principle of a minute, generative unit creating the basis for all life through a successive process of variation.

⁷ Rudolf Magnus, *Goethe as a Scientist*, trans. Heinz Norden, (New York: Schuman, 1949), 55-6.

This small unit conception—what both Robinet and Goethe referred to interchangeably as prototype, seed, and germ—represents the cornerstone of organicism and an important avenue for analysis of Bacri's symphony.

Whereas Goethe's language alludes to the animation of the germinating seed, a third theorist specifically references the vitality inherent in the organic process. August Wilhelm von Schlegel (1767-1845) was a German poet, translator, and critic best known for translating Shakespeare's plays into German, instantly turning the English dramatic works into German classics. Schlegel argued that, "Organical form is innate; it unfolds itself from within, and acquires its determination contemporaneously with the perfect development of the germ."⁸ In addition to maintaining the small unit terminology, he depicts the dynamic nature of a seed growing from within. This dynamism, implicit in Robinet and Goethe, now becomes much more explicit. The act of unfolding enlivens the static depiction with a vitality and energy the seed requires for its inevitable growth. Furthermore, Schlegel tells us this activation "acquires" a "determination." Not only does the seed provide the building blocks for growth, but it also specifies a teleological target. This direction towards a final goal possesses incredibly important implications for the creative process.

To summarize, the metaphor of organicism serves as a valuable analytical tool to gain insight into artistic works. It consists of three main elements. First, small unit conception focuses on the small, generative element, which, in turn, produces other

⁸ Marva Duerksen, "Organicism and Music Analysis: Three Case Studies," (PhD diss., City University of New York, 2003), 20, ProQuest Dissertations & Theses Global.

smaller units that combine to form a whole organism. Second, dynamism refers to the vigorous activity and constant progression of organic growth. Finally, goal-orientation or teleology refers to the dynamic growth possessing a purposeful drive towards a final objective. These organic characteristics manifest themselves in various ways throughout Bacri's Sixth Symphony.

The Small Unit Conception

The small unit conception becomes readily apparent when analyzing the melodic content of Bacri's Symphony No. 6. The discussion will first focus on an inventory of recurring set classes used throughout the work and their similarities in size, shape, and constituent intervals. The falling half step, being the most notable of these, appears frequently and plays an important role in the cultivation of the symphony's organicism. Then I will show how the burgeoning recurring collections visually represent organic root structures and fall into two main categories: bilaterally and obliquely expanding sets. This analytical perspective will provide the foundation to uncover how Bacri utilizes the small unit conception to organize the work into a cohesive whole.

The single-celled "monads" of Robinet's "prototype," Goethe's "seed," and Schlegel's "germ" find representation through Bacri's recurring set classes. Example 1 showcases an inventory of the important collections in the symphony, listed in descending order of number of occurrences. Each example is notated as deployed in the

score and labeled with its prime form for ease of discussion.⁹ The examples illustrate Bacri's tendency toward small-cell construction in the symphony. Seven of the nine repeating motives are tetrachords; one trichord and one pentachord represent the remaining two sets. The motives are compact making them more difficult for the listener to recognize. Despite this challenge, the various collections create the melodic language from which the entire symphony evolves.

A closer study of Bacri's recurring set classes reveals a deep connection to the botanical imagery of nineteenth-century organicism. The inherent organicism of each set can best be understood by comparing similarities among the various realizations of Bacri's collections. The most notable commonality, particularly in terms of audible similarities, comes from the concentration of falling, small intervals—whole or half steps—at the end of the arrangement. Of the nine sets in Example 1, six contain a falling interval at the end of the module. Five of these sets manifest as a falling ic1 and one, the [0137], as an ic2. Of the three collections with ascending final intervals, the [01234] and [0268] rise by an ic2 and the [0358] by an ic5.

American music theorist Allen Forte (1926-2014) and German philosopher, psychologist, and composer Theodore Adorno (1903-1969) address the issue of the half step, but from differing perspectives. Both highlight the interval's dynamic nature and importance to melodic progression. Allen Forte offers a more theoretical perspective

⁹ Note collections will be referred to by their prime form using brackets and no commas: [0125]. This may or may not reflect the order in which the arrangement is found in the music. When referring to specific pitches in a collection, braces and commas will be used and will reflect the order in which they are deployed in the music: {C,G,B,B \flat }.

Example 1: Bacri, Symphony No. 6, Op. 60, Hierarchy of Recurring Set Classes

Examples shown as deployed in repertoire, not in normal order

Tetrachords

[0125] mm. 17-20
oblique
82 occurrences



[01234] mm. 90-5
bilateral
50 occurrences



[0146] mm. 2-3
bilateral
19 occurrences



[0156] mm. 8-9
bilateral
18 occurrences



[0358] mm. 20-22
bilateral
15 occurrences



[0126] mm. 79-80
oblique
13 occurrences



two consecutive
iterations of
the set class

[0268] mm. 4-5
bilateral
7 occurrences



[0137] mm. 6-7
bilateral
4 occurrences



Trichord

[016] mm. 9-10
oblique
48 occurrences



when discussing what he refers to as the “law of the half step.” He writes:

The leading note is only one instance of the operation of an important melodic law, the *law of the half step*. According to this law the strongest, most binding progression from one note to another is the half-step progression. If both whole-step and half-step progressions are available from a given note the half-step progression will always be preferred.¹⁰

Forte’s law seems to codify the dynamism of the minor second, imbuing it with a primacy over other intervals, namely the whole step. Adorno offers a more metaphorical explanation for why the predominance of half steps is so vital to a discussion of organicism:

The minimal, as it were effortless, transition of semitone steps is regularly associated with the idea of growing plants, since it appears not to have been manufactured, but seems as if it were growing towards its final purpose without the intervention of the subject.¹¹

Adorno suggests that the half step’s very nature conveys growth and a particular dynamism linking it with organicism. In functional harmony in particular, the half step is of vital importance to the harmonic progression. The leading tone provides such a strong pull towards the tonic that the interval is engrained in the aural consciousness of all who have been indoctrinated in the Western tonal system.

Despite the lack of a centric pitch in this work, Bacri’s consistent use and explicit placement of the half step creates the attraction found in functional harmony. Although the ascending half-step in a tonal pattern like *sol-la-ti-do* leads expectedly and quite

¹⁰ Allen Forte, *Tonal Harmony in Concept and Practice* Third edition (New York: Holt, Rinehart and Winston, 1979), 56.

¹¹ Holly Watkins, "Toward a Post-Humanist Organicism," *Nineteenth-Century Music Review* 14, no. 1 (2017): 93.

naturally to the tonic, starting at *do* and falling to the leading tone is much stronger. Melodies that pass through *do* to *ti* generally yearn for the return to *do*, even if this takes some time. This pull of the descending half-step back to the tonic pitch is intensely felt because the listener has been trained to hear this return by over two hundred years of common-practice diatonicism. With Bacri's collections, no such attraction occurs, causing the set to feel incomplete, creating the anticipation for some further motion. The sets appear as inchoate entities. Bacri deftly utilizes the half step to create a sense of motion, dynamism, and inevitability that connects his motives directly to the vitality of living organisms.

In addition to the dynamism created by the half step, the recurring collections also contain similar contours that imply horizontal or vertical expansion. I created several terms to differentiate among the intervals in each collection as well as categorize each deployment's type of expansion. Each set contains a larger, *anchor interval* combined with one or more smaller, *secondary intervals*. Visually, the expansion from the anchor interval divides into two categories: *bilateral* and *oblique*. In bilaterally expanding sets, the direction of growth occurs in either the vertical or horizontal direction, while the obliquely expanding sets only extend horizontally.

Bilaterally Expanding Sets

In bilaterally expanding sets, the anchor interval sits in the middle, balanced on each side by smaller intervals, with the direction of expansion oriented vertically or horizontally out from the anchor. Examples 2a, b, and c show three horizontal bilaterally expanding sets: [0156], [0146], and [01234], respectively. The measure numbers indicate

where the first presentation of each module occurs and which instrument performs it. The symmetrical nature of set class [0156] demonstrates a common procedure in which the two secondary intervals exhibit identical intervallic content, but are directionally inversely related. In set class [0146], the secondary intervals exhibit the same inverse relationship contours as in set class [0156], but the qualities of the intervals—ic2 and ic1—spoil the symmetry manifest by set class [0156]. Nevertheless, the dynamic nature of half steps implies further possible development. This is a perfect example of Forte's *Law of the Half Step* at work. The bilateral ics1 of the [0156] set make it the perfect connecting module between two areas of developing activity. In contrast, the [0146] grouping seems better suited to initiate growth as the whole step on the left contains less potential for expansion than the ic1 on the right. Consequently, the [0146] arrangement occurs after a place of inactivity and begins a section of melodic growth. The unique dynamic nature of each set will receive further in-depth analysis later in this discussion.

Example 2: Bilaterally Expanding Sets, Horizontal

Secondary Interval ← Anchor Interval → Secondary Interval

a) [0156]
m. 8
viola
Anchor Interval
Secondary Intervals
ic1 ic1

b) [0146]
m. 2
horn
ic2 ic1

c) [01234]
m. 8
violin 2
ic1 ic2 ic1 ic2

Set class [01234] exemplifies how horizontally bilaterally expanding sets can extend beyond a single level of expansion from the anchor interval. While the anchor is flanked on each side by two secondary intervals, they are not symmetrically deployed. Looking at Example 2c, the pattern ic1-ic2-anchor-ic1-ic2 makes logical sense from a linear perspective as Bacri approaches and leaves the anchor by the same series of intervals. However, analyzing the extension from a bilateral perspective reveals an imbalance in each level of expansion from the anchor. If [01234] was deployed symmetrically, we would expect ic1-ic2-anchor-ic2-ic1, ensuring balanced intervals expanding out from the anchor. The interval series ic1-ic2-anchor-ic1-ic2 resembles the asymmetry of the [0146] arrangement, ic2-anchor-ic1 in Example 2b. As with any root system, the goal of outward growth takes precedence over perfect balance or symmetry. The roots growing from a seed or foliage from a bush inevitably hit a rock or some other

obstruction and do not grow totally balanced. The variety of these bilaterally expanding sets exemplifies the horizontal aspect of a subterranean root system. But what of the vertical?

Example 3 exhibits sets [0268] and [0358], which demonstrate the vertical aspect of the bilaterally expanding sets. Rather than featuring secondary intervals and movement in contrary motion, [0268] places two whole steps in the same direction around the anchor. This vertical expansion from the central anchor mimics the height a plant gains while growing both above and below the soil line. Furthermore, set class [0358] displays the same contour found in [0268], but with substantial enlargement to the secondary intervals. In [0358], the lower and upper secondary intervals grow into perfect fourth and perfect fifth, respectively, around the anchor interval. The deployed [0358] spans an octave and a third as compared to the ic 6 of the [0268]. As Example 1 has already shown, Bacri employs the [0358] more frequently than the [0268], suggesting a greater importance is given to the growth of the latter. While implying a relationship between the two through their contour, he seems to favor the larger motivic space of the [0358].

Example 3: Bilaterally Expanding Sets, Vertical

The diagram illustrates the concept of bilaterally expanding sets. It shows a central 'Anchor Interval' with two arrows pointing outwards to 'Secondary Intervals', one upwards and one downwards. Below this, two musical examples are provided:

a) [0268]
mm. 4-5
horn

b) [0358]
mm. 20-21
strings/clarinet

Example a) shows a bass clef staff with a 4/4 time signature. The notes are G2, A2, B2, and C#3. An 'Anchor Interval' is indicated between A2 and B2. 'Secondary Intervals' are indicated between G2-A2 and B2-C#3. Example b) shows a treble clef staff with a 2/4 time signature. The notes are G4, A4, B4, and C5. An 'Anchor Interval' is indicated between A4 and B4. 'Secondary Intervals' are indicated between G4-A4 and B4-C5. A triplet of notes (B4, C5, B4) is also shown.

Obliquely Expanding Sets

Obliquely expanding sets, though fewer in number than their bilateral counterparts, still retain a significant status in the symphony. Example 4 shows how consecutive secondary intervals extend out from the foundational anchor interval to form this category of set class arrangements. The [0125] realization, seen in Example 4a, dominates all others as the most commonly occurring collection in the work and provides the clearest example of an obliquely expanding set. This pattern of intervals creates a more linear, wave-like contour than the bilaterally expanding examples. This conical dwindling of intervallic quality mimics the tapering of roots of taproot plants like dandelions and edible roots such as carrots and beets. As shown in Figure 1, the thickest

and most solid section thins as the lateral or branch roots travel further from the body of the plant.

Example 4: Obliquely Expanding Sets

Anchor Interval → Secondary Interval → Secondary Interval

Anchor Interval

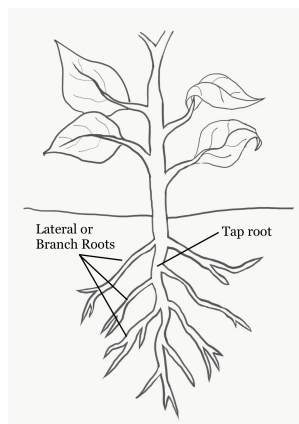
a) [0125]
mm. 17-20
strings/clarinet

ic4 ic1
ic5
Secondary Intervals

b) [0126]
mm. 79-80
flute/celeste

ic6 ic1 ic1
ic6 ic1 ic1

Figure 1: Taproot System. Reprinted with permission from Cory Chapman.



The [0126] set offers a particularly interesting example of the oblique phenomenon. Example 4b shows a consecutive pair of [0126] sets sequenced an ic 3

apart. As with the [0125] collection, the [0126] arrangement begins with the anchor interval and then spins off secondary intervals. While the intervallic content of each [0126] set is identical, the enharmonic spelling of the anchor changes in the second set resulting in a diminished fifth followed by an augmented fourth. This interesting coincidence creates the visual illusion of contraction between sets mirroring that of the obliquely expanding set.

The [016] set—the most prominent trichord—provides a case that summarizes this discussion of recurring set classes in Bacri’s symphony. When comparing the first example of [016] with the other sets in Example 5, one quickly notes it lacks only the first note of the deployed [0156]. Further comparison of the example reveals [016] possesses a similar contour to the last three notes of both [0125] and [0146]. Despite the differing anchor intervals, the falling step in the opposite direction creates not only a visual likeness, but an aural signature that begins to plant itself in the listener’s consciousness. While the listener might not be able to immediately differentiate among the many sets, the recollection of an auditory memory—the basic contour—begins to inherently characterize much of the melodic material in the symphony.

The construction of the bilaterally and obliquely expanding sets creates one aspect of the symphony’s inherent organicism. First, the sets visually depict the actual growth of plants and their root systems. Second, the constituent intervals and their resulting contours, while slightly varied, retain enough similarities for the listener to recognize them as all belonging to the same “organism.” In the same way scientists classify various plant species according to shared characteristics, these sets define the melodic gestures of Bacri’s symphony as their own “species.” The study of the connections among the sets

outlined above operates in the same manner as botanists studying the differing variations of needles and cones of coniferous trees. The size, shape, and texture of a tree's needles and cones help identify its type and how it relates to other family members. So, too, do Bacri's sets help to identify the various melodic material throughout the symphony and to discern its function and importance.

Example 5: Expanding Sets in Comparison

[016] 

[0156] 

[0125] 

[0146] 

Prototype

Segmentation and the Prototype

The initial bars of Bacri's symphony offer an instructive glimpse into the organic construction of the work's melodic content. This opening shows the composer manipulating the regularly occurring collections to form longer melodic ideas. Example 6 shows mm. 1-13 of the symphony. This introductory melody, performed by the first horn over a drone in the low strings, initially appears to lack direction. In a seemingly aimless

succession of fragments, the melody seems to insinuate a certain amount of improvisation at the moment of creation. As it reaches higher and higher in the horn's register, the melody provides a quintessential example of what Schlegel seemed to mean when he referenced a melody “unfold[ing] from within.” In addition, the accelerando in measure twelve creates a sense of urgency with the oscillating C-sharp to D sounding closer and closer together. One can almost envision a blossoming bud struggling to break through the earth's surface, then opening to reveal its hidden inner petals. A closer look reveals an ostensibly haphazard phrase that possesses as much complexity as a flowering bloom.

Example 6: Bacri, Symphony No. 6, Op. 60, mm. 1-13

The musical score for Example 6, Bacri, Symphony No. 6, Op. 60, mm. 1-13, is presented in three staves. The first staff (bass clef) contains measures 1 through 6. It is annotated with '+ low WW & strings' at measure 1, '+ horn' at measure 2, and 'Segment 1' spanning measures 2-3. Measure 4 is the start of 'Segment 2', which continues through measure 6. The second staff (bass clef) contains measures 7 through 10. It is annotated with 'Segment 3' spanning measures 7-8, 'Segment 4' spanning measures 9-10, and 'accel. poco a poco' at measure 9. The third staff (treble clef) contains measures 11 through 13. It is annotated with 'Segment 5 + strings' spanning measures 11-12, 'Segment 5 fragmented' at measure 13, and 'Segment 5 fragmented again' at the bottom of the staff. The melody consists of a series of notes, some with rests, and some with sustained pitches, creating a fragmented and improvisatory feel.

The “prototypical element,” as described by both Robinet and Goethe, appears in the opening bars of Bacri's symphony. The melody consists of four segmented sections. Note the rhythmic markers in the example—either a rest or a sustained pitch—that delineate the end of one segment and the beginning of another. The noticeably longer duration of each final pitch creates a momentary pause in the melody's forward

momentum, drawing attention to the segment's autonomy. Furthermore, Bacri separates the first discrete module from the remainder of the horn line with a quarter rest, and then deploys the remaining segments in continuous succession. The dissociation of Segment 1 from the others implies that it possesses some unique quality the others do not, exposing it as the “generating element” so integral to organicism. A more comprehensive analysis of each segment further validates this assertion.

Bacri anticipates the prototype through the initial instrumentation and texture before the melody begins. The work opens with the timpani, cellos, and basses sounding a low E-flat for the duration of a whole note extended indefinitely by a fermata. As if recalling Strauss's opening to *Also Sprach Zarathustra* or the same low E-flat from Wagner's Prelude to *Das Rheingold*, the low register and solitary pitch—lacking any harmonic or metric structure—evoke a sense of cold, dark emptiness. From somewhere in this lifeless expanse, the horn sounds the first melodic content of the piece: the set class [0146]. This instrumentation sparks an image of a seed lying dormant in the earth, waiting to begin its life. The rhythmic separation of Segments 1 from 2 by the quarter rest, when combined with the transparent texture surrounding its first presentation, definitively establishes the [0146] as the “prototypical generating element.” Not only does the quarter note rest separate the prototype from the following segments, but the motive both foreshadows and influences the acoustic surface of the music that follows. Furthermore, the [0146] set class perpetuates the organic metaphor, as it is an all-interval tetrachord containing all the intervallic “DNA” necessary to create the composition that follows.

Bacri solidifies the organic metaphor of this opening melody through the manner in which he deploys the subsequent iterations of the prototype. Segments 2 through 4 unfold organically from Segment 1. Example 7 shows Bacri morphologically reworking elements of the prototype to produce Segment 2 as the melody begins its ascent skyward. After the initial [0146] tetrachord in Segment 1, Segment 2 seems to begin as an immediate and direct repetition of Segment 1. This paraphrase of the first three notes signifies Segment 2's indebtedness to the initial tetrachord, a nod to Segment 1's seminal importance. Instead of the expected descent from B to B-flat, Segment 2 rises to a C-sharp that then pushes on to G-sharp and D. The reference to Segment 1 and subsequent alteration suggests future development. As Example 7 also demonstrates, Segment 2 further divides into the overlapping tetra- and tri-chords [0268] and [016], with C-sharp as common tone. If the [0268] deployment implies variation of Segment 1, the [016] arrangement confirms it. The [016] cell marks the most disjunct motion of the melodic contour to this point. However, the subset of the [0146] module acquires its significance due to its constituent intervals' relationship to the prototype. The deployed [016] consists of an ic5 followed by an ic6, both found in the prototype. Looking momentarily at Segments 1 and 2 as one unit, the interval pattern of ic6-5 to ic5-6—accounting for the enharmonic spellings of the augmented fourth and diminished fifth—recalls the symmetry of the bilaterally expanding sets. The melody literally unfolds from within itself. This embodied phenomenon cannot be a coincidence, but signals a greater implication for Segment 1 as the prototype. Furthermore, the comparison of these two segments articulates the manner in which the prototype will exert influence over future melodic units.

Example 7: Segments 1 & 2

Segment 1 [0146]

Segment 2 [0268] [016]

F G B

F G B

ic6

ic5

ic5

ic6

Segments 3 and 4 reinforce the organicism and primacy of the prototype while, at the same time, adding to the melody's vertical expansion. The variations of the prototypical "germ cell" continued in Segments 3 and 4 exemplify Robinet's "tendency towards self-development."

Example 8 shows Segments 1 through 4 together for comparison. The significant adjacencies that construct the contour of Segment 3 are the descending leap and descending step. I have marked the reiterated descending ic5's with boxes and the descending steps with ovals. The ic5 seems to be the vehicle of energy that propels the melody to each successive segment. While the falling ic1 of Segment 3 does not actually replicate the ic1 from the prototype, it recalls its shape. The importance here lies not in the replication of exact intervallic content among the segments, but that the *similar contours* remind the listener of what has come before. Each successive collection

represents a reworking of those that precede it, which fundamentally all realize a variation of the prototype.¹²

Example 8: Comparison of Segments 1-4

Segment 1

[0146]



Segment 2

[0268] [016]



Segment 3

[0137]



Segment 4

[025]



Determination and the Prototype

A closer study of Segments 3 and 4 (example 8) showcases how Schlegel's reference to cells "acquiring a determination" plays out in Bacri's symphony. The wandering nature of the opening melody as previously discussed intensifies the struggle

¹² I should take a moment and clarify the obvious similarities between Segments 2 and 3 and why I believe them to be discrete sets rather than analyzing the E in Segment 3 as an appoggiatura figure. In addition to the rhythmic markers already discussed and "the tendency toward self-development," the distinction of Segment 3 relies on the energy gain of the IC 5. To use another metaphor, imagine a mountain climber on the side of a cliff with his left hand, the C#, and feet, the G#, creating a firm anchor on the rock face. His right hand rests slightly above him on the D. To continue his ascent, he uses his anchored appendages to reach higher. He hits the E but loses his grip and returns to hand position of the D. Despite its failure to lift him higher, this attempt was just that. It was one of a thousand moves he will make cresting the summit. In the same way, Segment 3 is a discrete segment. While the melody did not attain the incremental step higher it was the initial intention.

to find direction with each new segment. The successive vertical expansions seem increasingly taxing. Both Segments 3 and 4 return to the descending ic5 formed by C-sharp and G-sharp before their reaches skyward. This repetition of the descending ic5 seems to help the melody gather its strength to extend higher with each successive segment. Though the fragmentation of Segment 4 is more noticeable, the rhythmic diminution of the collection channels even more strength for one last effort at propulsion to the B natural. The repeated interval serves two functions. First, by returning to the exact pitches, the interval becomes a foundation—a musical taproot—that furthers the organic metaphor by creating the stable bedrock that encourages the melody aloft. Second, the repetition of the interval bestows upon it a privileged status, both from a metaphorical and rhetorical perspective, which cannot be overlooked. While not apparent at this moment, Bacri prepares the listener's ear to recognize the interval when it appears later in the symphony.

Ultimately, the strength that the melody extracts from the repeated ic5 proves inadequate. Like any overdetermined passage, the horn lacks the resolve to arrive at a firm conclusion. Bacri abandons the listener as he suspends the melody on the B4 above the lower strings in Segment 4. As if standing on a tall precipice, the listener senses something more, but has no clear way forward. When analyzing what seems to be missing, one realizes that Bacri omits the final descending step: the interval the listener has come to expect from the contours previously presented. The C-sharp-G-sharp-B—feels familiar, yet incomplete and open-ended because of a lack of the falling step. More importantly, a needed descending B to B-flat recalls the same final interval from the [0146] prototype. While Bacri hints at the existence of a telos, he remains silent on its

exact nature. One must compare Segment 4 with the [0125] set class from Example 1 to truly uncover Bacri's teleological intent.

The deployment of Segment 4 indicates the fully-formed [0125] motive as the goal of the melody's newly acquired determination, making it integral to the organic implications of the symphony's opening. As previously shown in Example 1, the [0125] collection is the most important referential set in the symphony. It appears far more frequently than any other arrangement and occurs in easily perceivable instances, even amidst dense orchestral textures. In both the melody's culmination and highest range, Segment 4 would have been an ideal place for Bacri to introduce the fully-realized [0125] tetrachord to solidify its essential prominence.

Let us assume that Bacri had provided the much-needed descending step. Would this solve the problem? Unfortunately, it would not. While the [025] triad seems to be lacking only the falling ic1 to make it a [0125], this is not actually the case. Adding a falling ic1 to Segment 4 would yield a C#-G#-B-B-flat deployment. While the contour recalls that of the [0125], the prime form is actually a [0235] collection. Due to the R_p relationship between the two sets, the listener yearns for the contour of the [0125] without necessarily understanding why.

As if grafting different trees together to make a new species, Bacri foreshadows the full [0125] tetrachord by reinforcing aural memories of the module in fragments from the various surrounding segments. Through the repetition of the intervallic elements that precede Segment 4, the listener accepts their presence and even longs for them. Example 9 summarizes these elements. Segment 1 offers the first presentation of the descending half step, given additional emphasis by two equal half notes. Segments 2 and 3 display

their consanguinity with the full [0125] realization, in which the C and G are now expressed as C# and G#. The adjustment of only an ascending half step between these two intervals will bear fruit later in the symphony. Segment 2 contains the consecutive, large leaps, first descending then ascending, but lacks the signature falling interval. Segment 3 then reiterates the consecutive leaps, but also contains the added step down. A whole step in this case differs from the desired half step, but still recalls the descending step of Segment 1. While not the exact intervals found in [0125], they are close enough—within a whole-step—to take on an agency. They act like a calling card—almost a physiognomy—the listener recalls upon their return.

Example 9: Cultivation of [0125] Deployment

Fully Realized
[0125] mm. 16-18



Segment 1 mm. 2-3
descending half step



Segment 2 mm. 4-6
descending perfect fourth
contour of first two intervals



Segment 3 mm. 6-7
descending step
contour of all intervals



Not only does Bacri maintain the [0125] contour within each segment, he does so *in between* segments as well. When viewing the [016] module of Segment 2 and the first note of Segment 3 together as one unit, seen here in Example 10, the [0125] contour of

P4-rising interval-falling step appears. The final descending half step of this patchwork comes from the D stepping down to the C-sharp, creating the completed [0125] contour he began in Segment 2. To further emphasize the descending half step, Bacri repeats the same notes by placing the beginning C-sharp of Segment 4 a half step lower than the ending D of Segment 3. I have bracketed these instances of the half step in the example with “m2.” As previously discussed, the rhythms he uses to define the segments do not make these connections immediately evident. At this point, the pitches operate within their respective segments, not as members of the [0125]. Only after a second or third hearing, once the listener possesses a better aural memory of the intervals, do these relationships become noticeable. Despite heavily insinuating its existence, Bacri quite brilliantly withholds the full realization of the [0125] collection.

Example 10: Contour between Segments

Segment 2

Segment 3

Segment 4

ic1

ic1

[0125] contour in between sets

Segment 5 offers the final piece of evidence for viewing Segment 4 as a foreshadowed [0125] and the organic goal of the work. The [0156] collection in Example 11, performed by the second violins and violas, marks the first time new timbres have joined the horn. Consequently, this line provides the first commentary on the horn's

melody. The violas enter with Segment 5, but their different instrumental timbre and lower register do not connect with the horn. They sound more like an interruption than a continuation. The implication of this effect seems to point to something more—almost an answer to the question posed by the horn. The seed has sprouted through the earth’s crust, but we still cannot tell what plant it is because we cannot see any bloom. However, this passage played by the violins and violas must be included as a part of the organicism of the opening—it invigorates the sense of determination, giving life to the melody the horn could not manage. The horn provided the content, while the strings supplied the energy needed to propel its realization. Furthermore, Segment 5, with its fragmentation and extreme concentration, focuses our attention on the descending ic1 as a privileged interval.

Example 11: Segment 5 Fragmentation

[0156]
Segment 5
+ vln 2, vla
[016]
+ vlc
[01]

accelerando, the repeated half steps seem to awaken a drive that evolves into the frenetic energy of the *Allegro collerico* beginning in m. 14. The almost obsessive repetition of the interval, the vigor with which it propels the piece forward, and the constant referral to it in and between the previous segments demonstrate its vital importance. While we don't immediately realize the full ramifications of its significance, we realize they exist. Bacri argues, almost satirically, for the interval in every possible location *except* in Segment 4 where it ultimately belongs. This obsession with the half step—both in terms of its omission in Segment 4 and its repetition in the disintegration of Segment 5—depicts what Adorno meant when referring to the interval's growth "towards its final purpose." The interval not only provides the energy for the work to move forward, but it also provides the rhetorical goal by demanding the presentation of the fully formed [0125] set.

[0125] Iterations

Bacri unifies his Sixth Symphony with the principal set [0125]. The organic cultivation of the set's introduction, varied repetition, and ultimate integration into the emotional climax of the work illustrate its significance to the symphony. He proclaims the importance of the [0125] set through the organically constructed orchestration used during its first presentation. Example 12 shows the new *Allegro collerico* tempo marking that begins in m. 14. The Italian word *collerico*—meaning choleric, ill-tempered, or irritable—colors the character of the motive's introduction. The prickly and fractious nature of the *collerico* creates an unsettled quality to this section that already seems to search for something. The [0125] collection appears in measure seventeen, propelled into

existence by the sheer irascible energy of the low string and woodwind line preceding it. The bassoons (including contrabassoon), piano, harp, cellos and double basses begin their line on a low, *fortissimo* E2 (E1 for contrabassoon and contrabass). While not the lowest note these instruments can play, it is definitely in the lower part of their range, the locus of their richest and most powerful sound. The bassoons, for instance, can exploit a particularly reedy and unrefined timbre that emphasizes the cantankerous nature of the *collerico* tempo marking.

In the duration of only one measure, this line launches skyward, spanning more than two octaves. Example 12 shows the upward low woodwind and string gesture consisting of three elements. The E natural recalls the E-flat from the first measure with the sustained duration of just over a half note mimicking the length of the fermata. The [0156] collection, which launched the introduction into the new tempo, operates here with the same purposeful activity of initiating this melody's movement away from the E. In addition to preparing for the expanded [0358] arrangement in m.20-21, the passage shows how the final note of the [0347] group grafts itself onto the F-sharp viola pedal with alternating winds in m. 16. While the repetition of sixteenth notes sustains the energy of the *Allegro*, its simplicity creates a perfectly sparse landscape that draws the listener's ear to the melody to come. The combination of these two gestures creates the foundational trunk upon which the [0125] set unfolds.

Example 12: Bacri, Symphony No. 6, Op. 60, mm. 14-25, Introduction of [0125]
Principal Set

The musical score for Example 12 is presented in two systems. The first system covers measures 15 to 19, and the second system covers measures 20 to 25. The time signature is 2/4. The score includes various performance instructions and markings. In measure 15, the tempo is marked 'Allegro collerico' and the dynamics are 'ff'. The bass staff features a rapid sixteenth-note pattern. In measure 16, the dynamics are 'f p' and the marking 'simile' is present. The score also includes markings for specific intervals, such as [0156], [0347], and [0358]. The instrumentation includes +Bsn, Vlc, +Cb, +Hp, Vla (pedal), +Cl, Vln 2 (pizz.), -Bsn, Vlc, Cb., +Hr, Tpt.

The rhythmic and intervallic construction of the [0125] collection creates a unique deployment that imprints upon the listener's aural memory. Each new repetition and organic variation forges a unity among disparate sections of the work. Mm. 17-19 in Example 12 show the quintessential deployment of the [0125] set. Of greatest importance is the contrast with the preceding three measures. The longer note durations of simple quarter and tied notes provide a brief respite from the frenetic energy of the sixteenth notes surrounding them. In addition, the wave-like contour of the arrangement's consecutive intervals runs contrary to the general surging sweep of measures fourteen through sixteen and the static repetition of the pedal. Whereas the rocketing bass gesture reaches across multiple octaves, the [0125] realization stays within an ic5 and to contract inward.

In mm. 45-62, Bacri deploys the [0125] principal set in three new: as vertical sonorities, as part of a contrapuntal texture, and as additional supporting collections deployed in the [0125] contour. First, the boxes in Example 13 show how Bacri presents

two deployments of the [0125] principal set and several of its subsets in a primarily harmonic manner using the different families of brass instruments. This marks the first time Bacri has used the principal set as a harmonic event rather than a melodic one. Furthermore, he introduces the listener to a new inversion of the principal set in the horn: {F,C,E,E \flat }. It is the manner in which he accomplishes these elements that is of particular interest.

Bacri begins this section transitioning from a melodic deployment of the principal motive to a harmonic one through an uncommon utilization of instrumentation. In mm. 42-45, rather than one instrument performing the entire collection, the trumpets and horns perform their respective set classes as one unit in which each member sounds only one note of the expected contour. While this occurrence most likely goes unnoticed by the listener, it allows for the melodic presentation of the set, after which, all members then sustain their pitches to create a simultaneity of the collection. That which was horizontal, now becomes vertical. Whereas the horn section has four members capable of completing the tetrachord, the trumpets and trombones can only create trichords, possibly explaining why the verticalities in these measures contain several [0125] subsets. Furthermore, this active morphing of melodic into harmonic deployments coincides with a dynamic tempo adjustment in m. 44. Rather than an abrupt increase of the tempo, the *stringendo al Tempo primo* indication returns the music, albeit in only one measure, to the *Allegro collerico* of the [0125] set's introduction after a brief, nine-bar *Poco meno stretto* section.

The horn section in m. 47 presents an interesting conundrum. The boxes show two possible set analyses for these notes. Incorporating all four notes yields a [0145] set class, which does not replicate the principal motive, an inversion, or any other recurring

collection, but does have the R_p relationship with the prototype [0146]. Taking a closer look at the voicing, the B appears to be an outlier, leaving the $\{C, E, E \flat\}$ clumped together and revealing a [014] trichord, which does connect as a subset of the principal motive. Interestingly, the trumpets in the same measure need only the B natural for their subset to become the [0125] collection. Although the listener is most likely unable to discern the discreet set classes as Bacri presents them simultaneously, this horizontal combination of set and subsets offers a fascinating glimpse into his compositional process. Bacri further cultivates the principal motive here, using a new inverted form as well as vertical presentations of the set and its subsets.

Example 13: Bacri, Symphony No. 6, Op. 60, mm. 42-47

stringendo al... Tempo primo

The musical score for Example 13, measures 42-47, is presented below. The score is in 4/4 time and includes staves for Hr 1/2, Hr 3/4, Tpt 1, Tpt 2, Tpt 3, Tbn 1, and Tbn 2/3. The tempo changes from *stringendo al...* to *Tempo primo* at measure 45. Various set classes are boxed and labeled above the staves:

- Measure 43: [0125] {C, G, B, B \flat }
- Measure 44: [0125] {F, C, E, E \flat }
- Measure 45: [014] {G, B, B \flat }
- Measure 46: [0125] {C, E \flat , E, F}
- Measure 47: [0145] {C, E \flat , E, B}
- Measure 48: [014] {C, E \flat , E}
- Measure 49: [025] {G, B \flat , C}
- Measure 50: [025] {C \sharp , B, A \flat }
- Measure 51: [025] {C \sharp , B, A \flat }

The contrapuntal imitation of the [0125] set occurring between the horns and trumpets in Example 14 possesses a new vigor and dark intensity not yet seen. It not only exposes a new depth to the dynamic and multi-faceted character in the organic development of this principal set, but also solidifies the aural image of the set. As previously exemplified by the symphony's opening bars, Bacri has been subtly preparing the listener's ear for the importance of the [0125] deployment. He previously accomplished this with simplicity and gentility, but uses a different approach here. The trumpets and horns suddenly launch into a battle of presentations of the [0125] transpositions. Note how each section uses the pitch classes they spelled out harmonically in the preceding measures. The trumpets begin the passage, shortly answered by the horns.

Both sections begin their presentation unified in their initial statements by the horns answering the trumpets in strict canonic imitation.. This uniformity quickly goes awry when both sections splinter into five competing voices: two in the horns and three in the trumpets. The literal cacophony of sound presents a seemingly infinite number of rhythmic variations of the [0125] arrangements. Interestingly, though, Bacri still preserves the hierarchy of [0125] collections as the horns play the secondary [0125] inversion of {F, C, E, E-flat} with a dynamic level of *forte* while the trumpets have a *fortissimo* for the primary {C, G, B, B-flat} configuration.

Example 14: Bacri, Symphony No. 6, Op. 60, mm. 47-60

48 49 [0125] on F 50 [0125] 51 [0125] [0125]

Hn 1/2 *ff* non legato [0125]

Hn 3/4 *ff* non legato [0125]

Tpt 1 *ff* non legato [0125] on C [0125] [0125] [0125]

Tpt 2 *ff* non legato [0125] [0125] [0125]

Tpt 3 *ff* non legato [0125] [0125] [0125]

52 [0125] 53 [0125] 54 [0125] 55 [0125]

Hn 1/2 [0125] [0125] [0125]

Hn 3/4 [0125] [0125] [0125]

Tpt 1 [0125] [0125] [0125] [0125] [0125] overlap with --> [0148]

Tpt 2 [0125] [0125] [0125] [0125] [0125] [0125]

Tpt 3 [0125] without C [0125] [0125]

The musical score consists of two systems of staves. The first system covers measures 56, 57, and 58. The second system covers measures 59 and 60. The instruments are Horn 1/2, Horn 3/4, Trumpet 1, Trumpet 2, and Trumpet 3. The notation includes various rhythmic values (eighth, sixteenth, and thirty-second notes), rests, and dynamic markings. Pitch contours are indicated by brackets with numbers inside, such as [0125], [01458], [05], [0148], [014], [03], [0347], [037], [02479], [0257], [02347], [0247], and [0235]. Some measures include triplets (3) and a 'pivot' marking in measure 56. The key signature has two flats, and the time signature is 4/4.

This contrapuntal section unequivocally proclaims the preeminence of the [0125] principal set. The *non legato* and elevated dynamics create an imposing and brash timbre. Furthermore, the obsessive repetition of the same two [0125] deployments with such an assortment of rhythmic patterns imprints the set into the listener's aural consciousness. Bacri uses repetition in a manner similar to composers of the Classical era: to solidify the importance of motivic material in the listener's ear. The organic nature of his composition, however, requires him to accomplish this on a more microscopic or

“cellular” level using the four-note set. This aural engraving occurs to such an extent that it ensures the listener immediately notices any future presentation of the collection. By the same logic, the listener would recognize even partial statements of the [0125] arrangement. That is to say that an interval or two resembling the principal set’s contour would “pop out” of the compositional fabric more readily because of the perpetual repetition of these measures. This phenomenon becomes a vital element in establishing the teleological goal of the entire symphony.

Bacri simultaneously bombards the listener’s ear with contrapuntal repetitions of the [0125] set and demonstrates how he will exploit this aural image as the symphony progresses. Example 15 exhibits a short illustrative fragment of the trombone section’s part during this transition. The second trombonist performs simultaneously other transpositions of the [0125] arrangement in addition to additional sets deployed with the same contour as the principal set. The first trombone line contains three consecutive presentations of the [0125] group on {E, B, D \sharp , D} followed by {A \flat , E \flat , G, G \flat }.

The [0145] and [0135] realizations in the second trombone are even more important. In mm. 54-56, the first three notes of each set begin in the same manner as would be expected for another transposition of the [0125] principal set, but the final pitch class results in a different interval than the desired falling half step: B-flat to G in m. 55 and an E to D in m. 56. By combining a perfectly spelled [0125] collection with additional non-[0125] sets arranged in the same basic contour, he seems to implicitly argue that the shape of the [0125] principal set will grow to possess a greater importance than its fundamental intervallic content. He can only accomplish this through an effective campaign of establishing an unforgettable aural engraving of the principal arrangement.

Looking back to the first measure in the example, we see Bacri doing just that. While not complete tetrachords, each trichord the trombones play begins with a descending ic5. This reemphasizes the importance of the anchor interval as an audible marker of the principal set. He continues to exploit the various intervallic connections in this manner through the alternative sets in the unison upper voice of this section.

Example 15: Bacri, Symphony No. 6, Op. 60, mm. 52-56

Performed by members of the upper woodwind and string families, the final voice in this contrapuntal transition illustrates one more way in which Bacri manipulates the [0125] contour. Example 16 begins with three pitches—A-E-G#—that imply another full iteration of the [0125] principal set, but the entrance of the [0126] module interrupts its completion with a sustained, high D-sharp. The leap to a higher tessitura and length of note duration signifies an important event. In addition, the immediate repetition of the set in shorter note values enlivens the motive and provides it with added significance. The [0126] deployment initially appears to contain the same three intervals as the [0125] principal set—ics1-5-4—yet, as the ic1 begins the order, the resulting [0126] doesn't possess the same interval vector as the [0125] set. In spite of this difference, the aural recollection of the [0125] still occurs because it presented in the previous two measures.

The listener's ear already expects a descending half step to complete the interrupted [0125]. When that ic1 occurs as the beginning of the [0126] module and then followed by the ic5 and ic4, the ear registers the incongruity in the pattern, but still recognizes the connection to the principal set because the [0146] is an all-interval chord. The final two bars of the excerpt exhibit the same scenario discussed in the previous trombone example. Only here, the set *can* compete with the other contrapuntal voices because of so many treble instruments in very high tessituras. Flutes, oboes, clarinets, and the entire violin and viola sections work together to present this melody in three octaves. Where the alternative set in the [0125] contour was mostly hidden in the second trombone line, it now possesses a much more prominent place in the acoustic surface.

Example 16: Bacri, Symphony No. 6, Op. 60, mm. 50-57

The three situations in this contrapuntal section of the transition represent different techniques Bacri utilizes to plant modular seeds in our aural consciousness. The phenomenon of morphing a set collection of pitches into an intervallic physiognomy capable of representing a vast array of set classes that all create an aural reference back to the originating set speaks to the organic cultivation of symphony's melodic content: these

sets are all [0125] and they are all not [0125]. Paradoxically, they each exist as a unique unit yet all resemble one another.

One important presentation of the [0125] principal set appears in mm. 145-66 and serves two purposes: reaffirming the set's aural signature and organic unity of form. Bound by two highly energetic and fast-tempo sections, the principal set occurs in a moment of repose. The deafening activity from the entire orchestra in the previous *vivace* comes to a sudden halt, and proceeds tentatively into the ethereal presentation of the [0125] arrangement found in Example 17. The upper woodwinds sustain a series of trichords that provide a gossamer-like cloud of harmonic support, through which the haunting notes appear in the harp. The juxtaposition of this relatively static material following such tumultuous energy focuses the listener's ear on the module. Furthermore, the unique timbre of harp harmonics elicits an even greater level of attention.

The harp plays the [0125] collection six times. The consecutive repetition itself offers nothing new, however, the interest lies in the meticulous nature of each recurrence. Bacri begins each new [0125] deployment on the next beat of the measure: the first module starts on beat one, the second on beat two, and so on. In addition, he returns to the C after each statement of the [0125] collection without actually completing the tetrachord. The audience registers the lone C the first time, but by providing the note and then not completing the set again, Bacri allows the listener's ear to fill in the gap with each subsequent occurrence. The three beats of rest after the isolated C provide the exact duration needed to audiate the three remaining notes of the set. This shows the extent to which Bacri has solidified the [0125] module in our aural consciousness.

Example 17: Bacri, Symphony No. 6, Op. 60, mm. 145-66

The image displays three systems of musical notation for Example 17, corresponding to measures 145-152, 153-159, and 160-166 of Bacri's Symphony No. 6. Each system consists of three staves: WW/Cel (Woodwind/Celli), Hp/Tpt (Harp/Trumpet), and Vla (Viola). The notation includes various musical symbols such as notes, rests, and chords. Specific set labels are placed above or below the notes, indicating pitch classes or sets. For example, in the first system, measures 145-152, the WW/Cel staff shows chords with labels like [012], [013], [025], and [0125]. The Hp/Tpt staff shows a sequence of notes with labels like [0125] beat 1, [0125] beat 2, [0125] beat 3, and [0125] beat 4. The Vla staff is mostly empty, with a few notes in measure 152. The second system (measures 153-159) shows similar notation, with labels like [026], [013], [015], [0125] beat 1, [0125] beat 2, [0125] beat 3, and [0125] beat 4. The third system (measures 160-166) repeats the notation from the first system, with labels like [012], [013], [025], [0125], [026], [013], [025], [027], [0125] beat 1, [0125] beat 2, [0125] beat 3, and [0125] beat 4.

The final example of the [0125] principal set, shown in example 18, comes toward the end of the symphony at the most emotionally climactic moment of the work. The searching horn theme that opened the symphony reappears in the recapitulation—this

time, with slight variations in contour, more melodic involvement from the bassoon and violas, and most importantly, an interruption of the expected *accelerando*. Bacri instead adds a new section beginning in m. 339. The seemingly aimless wandering from the beginning continues until it involves every member of the orchestra in its own independent melodic quest, delineated in the example by a plus sign and the instrument abbreviation. With a growing sense of anguish, each added instrument's melody reaches higher and higher with greater intensity and pathos.

The dramatic impact of this section comes not only from the return of the principal motive's contour, but also from its considerable intensification. Example 18 shows the extent to which the intervals expand. For ease of comparison, each interval is identified with the number of half steps using a plus or minus symbol to denote ascending or descending direction of movement. The intervals sprout from a <-5,+4> in the contour's first iteration in m. 347 to a gargantuan <-13,+15> in m. 350. While a complete iteration of the principal motive never appears, we somehow still perceive them as related because Bacri has so engrained the fundamental contour of the principal motive into our aural consciousness.

No passage in the entire symphony exhibits greater teleological drive than this one; the forward motion of its melodic expansion is inescapable. When we reach the climax in m. 351, the entire orchestra finally answers the question posed by the horn in the opening measures—an iteration of the seminal [0125] principal set. The teleological point of arrival occurs in a two-step process: the accumulated instruments sound F, A, E with a deafening response by the brass and percussion. Yet, this answer is not a literal presentation of the [0125] set. Instead, the contour of the principal set appears, but Bacri

leaves the expectation for the complete, quintessential statement of the collection unfulfilled.

After such a build-up, both in terms of this section and the entire work up to this point, one would expect Bacri to feature the most repeated and often-heard group of pitches end of this massive crescendo. Instead, Bacri provides something close to the principal set, but not an exact iteration. The trumpet sounds an E-flat on beat four. Due to the voicing of the chord and the trumpet's ability to cut through the instrumental texture, the E-flat becomes the most prominent note of the chord. Bacri's choice of the E-flat perhaps references the opening note of the work. Including this E-flat on beat four with the rest of the orchestra's F, A, and E, a [0126] pitch grouping of {F,A,E,E \flat } deployed in the [0125] contour appears.

Example 18: Bacri, Symphony No. 6, Op. 60, mm. 345-352

The musical score for Example 18, Bacri, Symphony No. 6, Op. 60, mm. 345-352, is presented in a multi-staff format. The staves are labeled Tpt/Trom, Vln 1, Vln 2, Vla, Vlc, and DB. The time signature is 4/4. The score includes various musical notations such as notes, rests, and dynamic markings. Key features include:

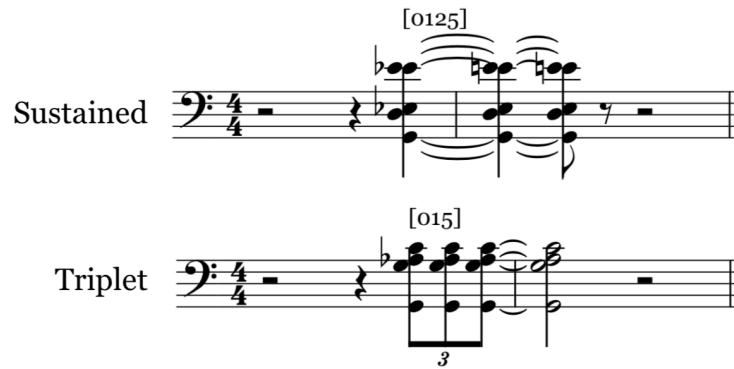
- Measures 345-348:** The score spans these measures, with measure numbers 345, 346, 347, and 348 indicated at the top.
- Pitch Groupings:**
 - Measure 345: Vla has a pitch grouping [025] marked *mf*.
 - Measure 346: Vla has a pitch grouping +cl [026].
 - Measure 347: Vln 1 has a pitch grouping <-5,+4> marked *f*.
 - Measure 348: Vla has a pitch grouping <-5,+12> marked *f*.
- Dynamic Markings:**
 - mf* (mezzo-forte) in measure 345.
 - f* (forte) in measures 346, 347, and 348.
 - +hr* (half rest) in measure 348.
 - +bsn* (basso continuo) in measure 348.
- Instrumentation:**
 - Tpt/Trom: Trumpet and Trombone.
 - Vln 1: Violin 1.
 - Vln 2: Violin 2.
 - Vla: Viola.
 - Vlc: Violoncello.
 - DB: Double Bass.

The musical score spans measures 349 to 352. The instruments are Tpt/Trom, Vln 1, Vln 2, Vla, Vlc, and DB. Measure 349 features interval markings <-5,+11> and <-11,+13> with dynamics ff. Measure 350 continues with <-11,+13> and ff. Measure 351 shows <-13,+15> and ff, with a box labeled 'Teleological Point of Arrival' pointing to the final chord. Measure 352 includes <-5,+12> and <-7,+13> with dynamics fff. The final chord in measure 351 is labeled [0126] {F,A,E,E♭} +bsn 1.

An analysis of the pitches on the fourth beat of m. 351 reveals a chord built from the pitch classes of the principal motive. Example 19 shows the note groups differentiated by rhythmic profile: sustained notes on the first staff and triplets on the second. The sustained notes {D,E♭,E,G} have all the expected intervals of the principal motive, yet not in the proper inversion, while the trichord of the triplets are missing a half step {G,A♭,C}. Furthermore, one would expect the principal collection deployed in the most common arrangement of {C,G,B,B♭} at pitch in this important section of the recapitulatory rotation. It is unlikely these idiosyncrasies are coincidental, but it begs the question: why has Bacri chosen something other than a full presentation of the principal motive?

Example 19: Bacri, Symphony No. 6, Op. 60, mm. 351-2, Fourth Beat Rhythmic

Differentiation



The answer lies in what comes after the point of arrival, reproduced in Example 20. Following a brief moment of respite, Bacri winds up the tempo again to *Allegro entusiastico*. With the wit of an inside joke, Bacri starts this section with an allusion to the ascending half step that begins the fourth movement of Dvořák's Ninth Symphony "From the New World." In his program notes to the symphony, he admits to showing a more lighthearted and humorous side. He writes, "I somewhat amused myself by sprinkling the score with a couple of metaphorical winks:...there is a very fleeting allusion to Antonin Dvořák's New World Symphony"¹³ In the context of Bacri's symphony, it adds a harmlessly satirical tone to the section and draws attention to the event. Example 20 shows how at the sudden grand pause, the tempo marking changes to *Allegro entusiastico* and the music launches into what was our *Allegro collerico* from the opening. It is not just the referential half step that conveys the satire of this section, but the number of ways in which he exhibits the half step. The melodic E to F in measure 357

¹³ Bacri, 1.

is the obvious reference. Yet, by placing the tied G-flats against the E and F, the resulting simultaneity on the second beat reveals another ic 1 with an octave displacement. The three notes together create an [012] set that is itself, a subset of the [0125] principal motive. Furthermore, m. 363 shows Bacri adding the G natural to the top staff creating two independent melodic half steps.

The satirical nature of this section becomes more integral to understanding the organic cultivation of the symphony when one recalls the important role the half step has played throughout the work. When the horn plateaus on the high B in the opening melody, it does not step down to create the defining descending half step of the principal set's contour. Likewise, it is only a half step that separates the [0126] collection at the climax from the [0125] principal set. Furthermore, the [015] triplet grouping on the fourth beat of the climax also lacks one note of a half step. As if to taunt the listener, Bacri metaphorically restores all these missing half steps in the first bars of the symphony's fourth movement. Bacri offers a generous bouquet of half steps, but after they were needed.

Although this section takes on a sense of satirical irony, a greater organic function seems to operate under the surface. As previously discussed, goal orientation is one of the hallmark characteristics of organicism. So often we see a goal as an endpoint, but in reality, often times the achievement of one goal only leads to the pursuit of yet another. This gets at the heart of the dynamic nature of organicism. While a flower may die and shed its petals, the entire plant does not die as well. It continues to grow and bloom again. Bacri seems to be insinuating this dynamism here as well.

Example 20: Comparison of Dvořák, Symphony No. 9 and Bacri, Symphony No. 6

a) Dvořák, Symphony No. 9, IV. Allegro con fuoco, mm. 1-5

Violin

Violin II/Viola

Cello/Bass

Vln I

Vln II/Vla

Vlc/Bs

b) Bacri, Symphony No. 6, IV. Allegro entusiastico, mm. 356-64

G.P.

Allegro entusiastico

357 358 359 360

m2

361 362 363 364

m2

Bacri wrote the Sixth Symphony in 1998 with Y2K looming in the not-so-distant future. Despite the general tumult of that period in history and the societal overreactions, it was a time required many people to take stock of the past and look to the future in a different way than would typically happen on New Year's Eve. In my interview with Bacri in July 2014, he expressed this type of contemplation at the time he was composing the symphony. He also wrote in his program notes, "...if my wish to write twelve symphonies (six in the 20th and six in the 21st century) is realized, I will have connected the heart of my cycle - symbolically and at an equidistance...—to two of the pinnacle works of the universal symphonic tradition." He was referring to the Dvořák quotation and to another reference to the Scherzo movement of another twentieth-century composer, Henri Dutilleux's Symphony No. 1. Seeing the Sixth Symphony as a waypoint in his compositional output is in itself both dynamic and organic. Furthermore, Bacri seems to imply that the "heart" of his cycle as he puts it, is the half step. The interval so important to my organic analysis of this symphony is the metaphorical crux of his idealized symphonic output.

Conclusion

The metaphor of organic growth applied to art and literature came to fruition in the nineteenth century through the writings of theorists like Jean-Baptiste Robinet and August Wilhelm Schlegel. They, along with other writers of the time period, advocated for a theory of organicism that coalesced around three main characteristics. First, the small unit conception focuses on the small, generative element, which, in turn, produces other smaller units that combine to form a whole organism. Second, dynamism refers to the vigorous activity and constant progression of organic growth. Finally, goal-

orientation or teleology, refers to the dynamic growth purposefully driving towards some final objective.

Bacri's symphony exhibits these three elements of organicism in a myriad of ways. All three are apparent in the opening thirteen measures. The first collection of pitches, a [0146] tetrachord, represents the prototypical melodic structure from which the entire work unfolds. The many recurring sets throughout the symphony can be linked back to this opening and the prototype. The sets also exhibit visual characteristics of an expanding root system. The commonalties between these sets assign them to one of two categories: Bilaterally or Obliquely Expanding Sets. The dynamic *accelerando* the end of this opening, launches the work into a presentation of the principal [0125] motive.

Bacri cultivates this incredibly important collection of pitches throughout the symphony and uses it as a unifying element. He first uses specifically chosen instrumentation to focus our attention on the presentation of the principal motive. Bacri puts the arrangement through an intense array repetition and variation, both melodically and harmonically, to solidify the contour of the note grouping in our aural consciousness. He then uses the [0125] contour in the final teleological climax of the work without actually presenting it in an exact iteration. Finally, the reference to Dvořák's *New World Symphony* returns comments on the importance of the half step to the principal motive and the organic development of the symphony.

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